



RECEIVED

DEC - 6 2002

CLEAN SET OF CLAIMS:

TECHNOLOGY CENTER R3700

1. (Amended) A method of forming a tamper resistant seal on a plastic bag containing a loaf of bread comprising the steps of:

flattening a portion of the neck of the bag adjacent the open end of the bag;

positioning a segment of the flattened portion to bridge between spaced grippers;

heating the segment spanning between the grippers to a temperature sufficient for bonding material

forming the neck of the bag for forming a sealed segment such that the product in the bag is not accessible;

gathering the flattened portion of the bag between the sealed segment and the product; and

attaching a reusable closure to said neck.

2. (Amended) A method according to Claim 1 with the addition of the step of perforating the bag, before heating the segment spanning between the grippers for forming a row of perforations between the sealed segment and the product in the bag.

3. (Amended) The method of Claim 1 wherein the step of heating the segment spanning between the grippers to a temperature sufficient for bonding material forming the neck of the bag such that the product in the bag is not accessible comprises moving the neck of the bag such that streams of heated air impinge on the surface of the bag for fusing panels on the bag together to form a sealed strip.

4. (Amended) A method of forming a tamper resistant seal on a plastic bag having a neck, with ink on the neck of the bag that may be softened by heat, and sides welded together to render the contents of the bag accessible containing a loaf of bread comprising the steps of:

flattening a portion of the neck of the bag adjacent the open end of the bag;

5 positioning a segment of the flattened portion of the neck of the bag such that it bridges space between horizontally spaced grippers;

heating the portion of the neck of the bag that it bridges space between spaced grippers to a temperature sufficient for bonding material forming the neck of the bag for forming a sealed segment such that the contents of the bag are not accessible;

10 gathering the flattened portion of the bag between the sealed segment and the loaf of bread; and

attaching a reusable closure to said neck, wherein the step of securing at least a segment of the flattened portion of the bag comprises the steps of:

delivering air heated to a temperature in a range between about 315° and 600° Fahrenheit in a stream to impinge against the surface of the bag; and

gripping portions of the bag adjacent opposite sides of the segment of the bag against which the stream of air impinges.

5. A method for forming a tamper resistant closure on a plastic bag containing a product comprising the steps of:

forming a row of perforations in the bag;

gripping the bag at spaced positions adjacent the row of perforations; and

5 directing temperature controlled air to impinge against the bag between the gripped positions for forming a sealed strip adjacent the row of perforations.

721  
6. Apparatus for forming a tamper resistant closure on a plastic bag containing a product comprising:

means for gripping spaced portions of the bag;

means for forming a row of perforations in the bag adjacent the gripped portions of the bag; and

5 means for delivering temperature controlled gas to impinge against the surfaces of the bag between the gripped portions for fusing portions of the bag between the gripped portions for forming a sealed strip, said perforations being positioned to permit removal of the sealed strip.

7. Apparatus for forming a tamper resistant closure on a plastic bag according to Claim 6, said means for gripping spaced portions of the bag comprising a pair of horizontally spaced upper belts and a pair of horizontally spaced lower belts, said horizontally spaced upper and lower belts being arranged to engage spaced portions on the neck of a bag such that the neck bridges space between the belts.

8. Apparatus for forming a tamper resistant closure on a plastic bag according to Claim 6, said means for forming a row of perforations in the bag adjacent the gripped portions comprising an anvil having a slot formed therein adjacent one side of the neck of the bag and a perforator wheel having cutter teeth positioned adjacent the other side of the bag neck such that said teeth perforate the bag and extend  
5 into the slot formed in the anvil when a bag neck moves between the anvil and the perforator wheel.

9. Apparatus for forming a tamper resistant closure on a plastic bag according to Claim 6, said means for delivering temperature controlled gas to impinge against the surface of the bag comprising an upper manifold positioned above the neck of the bag and a lower manifold positioned below the neck of the bag; and means for delivering air through said upper and lower manifolds for impinging against the neck of the bag, said air being heated to a temperature sufficient for melting the bag neck for forming a sealed strip extending generally parallel to said row of perforations.

10. Apparatus for forming a tamper resistant closure on a plastic bag according to Claim 9 with the addition of a diverter valve adjacent each of said upper and lower manifolds, said diverter valve being actuatable to divert air flow from said upper and lower manifolds and to exhaust air, without interruption of the flow of air into the diverter valves.

11. (Amended) Apparatus for forming a tamper resistant closure on a plastic bag containing a product comprising:

a conveyor for moving a plastic bag containing a product along a path, said bag having an open end forming a neck extending beyond the product in the bag;

an air nozzle for flattening the open neck as the bag is moved by said conveyor;

a pair of upper brushes and a pair of lower brushes, a first of said pair of upper and lower brushes having bristles arranged to engage the flattened neck of the bag and draw the bag transversely across said conveyor, second upper and lower brushes having angularly inclined bristles for moving the leading edge of the bag neck longitudinally of the conveyor while the trailing edge of the bag neck is engaged by the first upper and lower brushes;

a pair of upper belts and a pair of lower belts, said upper and lower belts being horizontally spaced apart such that one of said upper belts and one of said lower belts engage opposite sides of a portion of the neck of the bag and one of said upper belts and one of said lower belts engage a second portion of said bag neck such that a portion of the bag neck bridges space between the upper pair of belts and the lower pair of belts;

a perforator wheel adjacent one side of said bag neck and an anvil having a slot formed therein adjacent the other side of the bag neck, said perforator wheel forming a row of perforations in the neck of the bag moved by said upper and lower belts; and

upper and lower air dispensers positioned to deliver heated air to impinge against upper and

lower surfaces of the portion of the bag neck bridging between the belts for melting and forming a sealed strip across the entire width of the bag neck for forming a seal extending generally parallel to the row of perforations formed in the bag neck.

12. (Amended) A wrapper for a bakery product such as a loaf of bread, comprising:

5 a reclosable bag having a neck with ink on the neck of the bag that may be softened by heat and sides welded together to form a tamper evident seal strip, said tamper evident seal strip being formed by applying heat, without physically contacting surfaces on the bag with heated sealing elements; said bag having a row of perforations formed in the neck of the bag adjacent said tamper evident seal strip to facilitate removing said seal strip from the bag to render the contents of the bag accessible; and

10 closure means encircling the neck of the bag and closing the bag between said row of perforations and the contents of the bag to prevent contamination and for maintaining freshness of the contents of the bag.

13. A wrapper according to Claim 12 for a bakery product such as a loaf of bread, wherein said row of perforations is formed by spaced elongated slots in the neck of the bag, said slots being formed adjacent  
15 areas of defined length formed between said slots to leave spaced areas on the neck of the bag which are not cut, said row of perforations forming an initial tamper-evident tear-off strip.

14. A wrapper according to Claim 12 for a bakery product such as a loaf of bread, said closure means comprising:

a twisted ribbon closing the bag between said row of perforations and the contents of bag.

20 15. A wrapper according to Claim 12 for a bakery product such as a loaf of bread, wherein said bag is formed of plastic.

16. A wrapper according to Claim 12 for a bakery product such as a loaf of bread, said bag having a sealed closed end spaced from said neck, said sealed closed end not being intended to be opened; and wherein said neck is reclosable by gathering the excess length of the neck of the bag and

providing closure means that encircles the gathered neck of the bag.

17. A wrapper according to Claim 16 for a bakery product such as a loaf of bread, wherein said row of perforations forms an initial tamper-evident tear-off strip.

AB1  
5 18. A wrapper according to Claim 17 for a bakery product such as a loaf of bread, wherein the closure means is initially positioned at the openable end of the bag between the tamper-evident tear-off strip and the packaged contents such that the contents of the bag are not accessible until the seal strip is removed by tearing the bag along the row of perforations and such that the closure means can be removed after removing the seal strip for opening the bag and reattached for resealing the bag.

10 19. A wrapper according to Claim 17 for a bakery product such as a loaf of bread, wherein said closure means encircling the neck of the bag and closing the bag between said row of perforations and the contents of the bag to prevent contamination and for maintaining freshness of the contents of the bag comprises any one of the following:

a twisted wire-like tie;

a plastic clip having a slot that grips the neck of the bag; or

15 an adhesive tape.